

Abstract of the Disclosure

The subject invention pertains to materials and methods for producing plants that are resistant to infection by geminiviruses and other related viruses. Methods of the invention comprise transforming a plant with a polynucleotide wherein when the polynucleotide is expressed in the plant, the transformed plant exhibits resistance to plant viral infections. Exemplified herein is the use of a polynucleotide encoding a Rep protein derived from tomato mottle geminivirus. The methods of the invention can be used to provide resistance to viral infection in plants such as tomato and tobacco. The present invention also concerns transformed and transgenic plants in plant tissue that express a polynucleotide encoding a plant virus Rep protein, or a fragment or variant thereof.